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Title *Effect of Mutual Coupling on the Performance of Echelon Arrays*

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Abstract

The coupling between the antenna elements controls the array performance. For smaller inter-element spacing, the mutual coupling effect is known to degrade the antenna gain, beamwidth and output SINR. In this document, the effect of mutual coupling on the steady state performance of echelon dipole array is analyzed. Simulation study is carried out for equal length, unequal length echelon dipole arrays. The effect of variation of different parameters, viz. the number of antenna elements, the inter-element spacing, geometry of array, the ratio of desired signal power to thermal noise power on the output SINR is studied.